enhanced vision

merlin® HD OCR elite

User Manual

Congratulations on your purchase of the *Merlin elite* HD Magnifier with OCR from Enhanced Vision. The *Merlin elite* is a full-color High-Definition HD, auto-focus video magnifier system designed to enhance the lifestyle of the visually impaired. With the LCD monitor's adjustable arm, *Merlin elite* can provide the user with the ultimate flexibility in the position of the screen making reading easier than ever.

The *Merlin elite* is a fully integrated solution, offering the advantage of a built-in HD LCD screen and OCR. *Merlin elite* enables individuals with low vision to read, write, view photos, enjoy crafts and hobbies, and more – in color, black-and-white, or enhanced high-contrast positive or negative viewing modes. *Merlin elite* also includes 3 different preset viewing combinations for both text and background to provide improved viewing when reading. An additional 28 text and background combinations are available and can be programmed. With easy-to-use buttons, you can enlarge or reduce the image in seconds, change viewing modes for easier visibility.

Prior to using this system, please carefully read and follow the instructions provided within this booklet. Your *Merlin elite* is ready to use right out of the box. By reviewing all *Merlin elite* features and controls before use and following the directions carefully, you'll be able to enjoy all the great benefits from your purchase.

Enhanced Vision products are designed to give you the highest quality image, convenient and easy-to-use features and years of reliable service. Thank you for choosing the Enhanced Vision *Merlin elite*.

FCC COMPLIANCE NOTICE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the user’s authority to operate this equipment.

If your Low Vision device has an option to connect to a TV, it must be used with shielded interface cables in order to meet FCC emissions limits for Class B digital devices. It is the responsibility of the user to use the shielded interface cables supplied with the equipment.

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SAFETY AND CARE

For your safety and to obtain the most benefit from the *Merlin elite*, please read these safety precautions very carefully.

The *Merlin elite* is designed to enlarge and enhance images and read print aloud in order to improve the quality of life for people who are visually impaired. The extent to which this product can improve the ability to see images depends on a person's individual condition and level of visual impairment.

The *Merlin elite* is not designed to restore vision, correct eye conditions or halt degenerative vision loss. An eye care professional can determine the usefulness and suitability of the *Merlin elite* for a patient's individual condition.

Precautions for Use

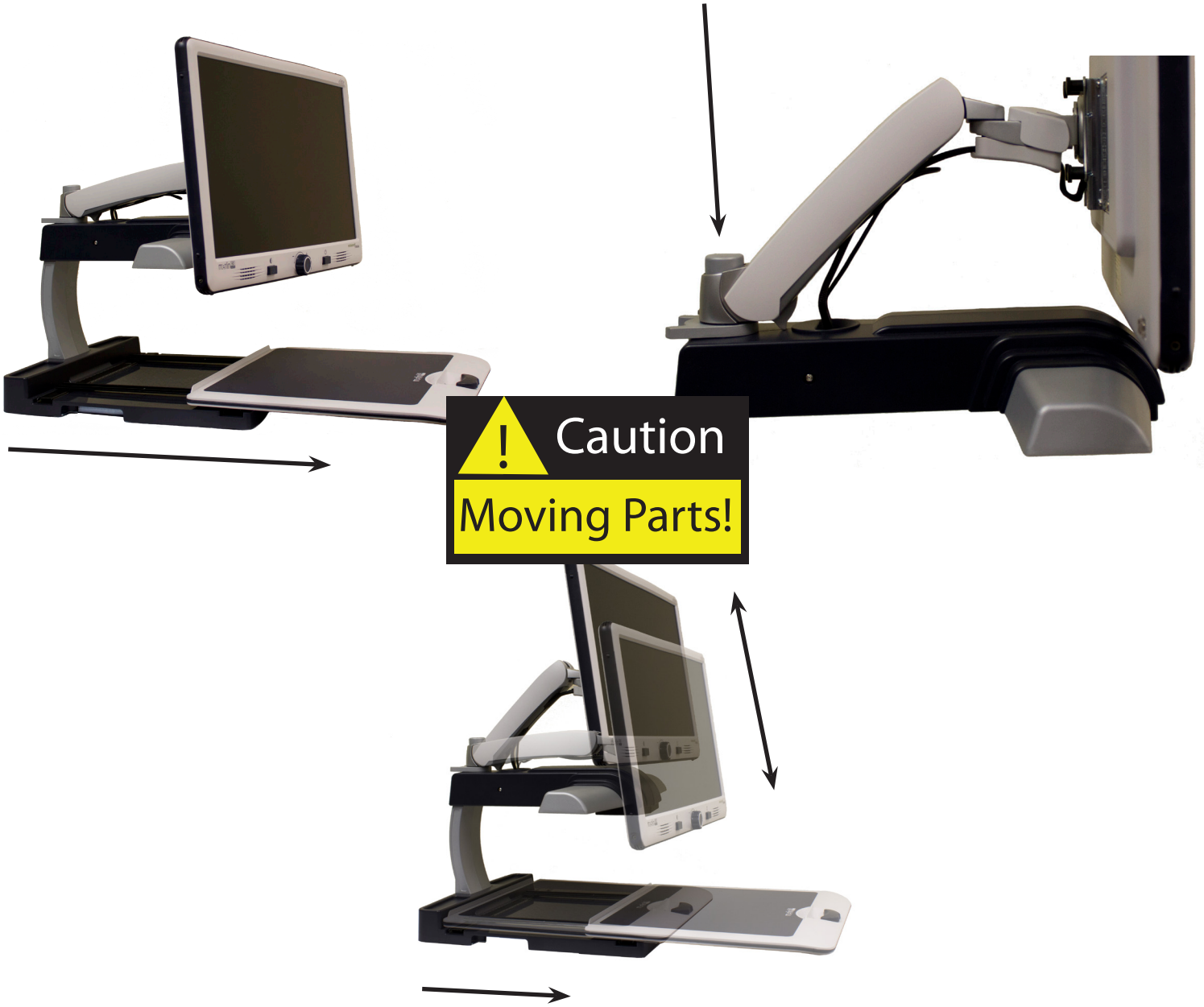
- Follow all warnings, cautions, and instructions marked on the product.
- Use the *Merlin elite* on a stable, level surface such as a solid desk or table, according to its intended design specifications.
- Avoid placing the *Merlin elite* on an unstable table, cart or stand. It may fall causing serious damage to the unit or bodily injury to the user.
- Use the *Merlin elite* indoors only – it should NOT be exposed to extreme or rapid changes in temperature or humidity. Do not place the *Merlin elite* near a radiator, heater or areas exposed to long hours of direct sunlight. These conditions may cause damage to the unit's electronics or optics.
- At least once per week, clean the *Merlin elite* with a soft dry cloth or an electrostatic dusting wipe. DO NOT use liquid cleaners on its plastic surfaces. No additional methods of sterilization or cleaning are recommended nor required.
- Do not use the *Merlin elite* near flammable materials or liquids.

Additional Electrical Safety Precautions

- The power supply cord is a disconnect device for electrical equipment. The socket-outlet should be installed near the equipment and be easily accessible.
- This product is equipped with a 3-wire grounding type plug as a safety feature. This plug has a third (grounding) pin and can only be plugged into a grounding-type power outlet. If necessary, contact an electrician to replace your power outlet with a grounding-type power outlet.
- Do not use the *Merlin elite* in, near or around water. The *Merlin elite* is not designed to offer protection against contact with liquids of any kind.
- Use only the power supply provided with your *Merlin elite*. Using unauthorized power supplies may cause serious damage to *Merlin elite's* electronic components.
- Using any other power supply than the one provided by Enhanced Vision for the *Merlin elite* will void the warranty.
- Always place the power cord away from traffic areas to avoid damage of power supply.
- Prevent the risk of electrical shock by NOT attempting to disassemble the unit. Please refer all service to an authorized repair facility.
- To avoid personal injury or damage to the *Merlin elite*, do not make connections other than those shown in the photo below.

Additional Mechanical Safety Precautions

Your *Merlin elite* contains moving parts. Please use caution when moving the X-Y table, adjusting the LCD monitor arm, or when transporting the *Merlin elite* to avoid possible injury to hands and fingers.



To Move *Merlin elite* to Another Location

- Use caution if you are repositioning the *Merlin elite* a short distance across a desk or table. Make sure you do not pull on any power cords or connector cables.
- Disconnect and secure all power and video cables and lock the X-Y table before moving the unit.
- Carry the unit only by the two recessed handles located on either side of its base. **Do not carry it by the LCD monitor arm.**

Caring for *Merlin elite*

- Always turn the power OFF (by holding the Power button for 5 seconds) on the *Merlin elite* when the system is not in use.
    - Pressing the Power button on the Front Panel, right side, of the *Merlin elite* for less than 5 seconds will put the device in Standby. Pressing the Power button again will wake the *Merlin elite* up from Standby.
- Always turn the power OFF (by holding the Power button for 5 seconds) before cleaning the Merlin-elite.
- Clean the *Merlin elite* with a soft dry cloth or an electrostatic dusting wipe. DO NOT use liquid cleaners on its plastic surfaces.
- The protective glass covering the camera can be cleaned as needed with the lens cloth provided within the packaging of the *Merlin elite*.

Susceptibility to Interference:

There may be temporary degradation of the image when the *Merlin elite* is subjected to a strong radio frequency field, electro-static discharge or transient electrical noise. An electro-static discharge (caused by static electricity) may cause the screen to go blank. If this happens, disconnect the AC power from the electrical outlet, wait 30 seconds, and connect the AC power again.

Compliance Warnings:

- Electromagnetic compatibility: The use of accessories and cables other than those specified by Enhanced Vision may result in increased emissions or decreased immunity of the *Merlin elite*.
- Placement of equipment: The *Merlin elite* should not be used adjacent to or stacked with other equipment.

Product enhancements and revisions are an integral part of what we do here at Enhanced Vision. Please visit - http://www.enhancedvision.com/low-vision-product-line.html and select your Enhanced Vision Product. You will find the most up-to-date version of the User Manual at the bottom of the page.

Take a few moments to familiarize yourself with the components of your *Merlin elite*:

1. 24” LCD Screen: displays high quality image
2. Power button
3. Zoom Wheel ((Size (Magnification) dial)) – ‘FIND’ key in center
4. Viewing Mode button
5. LCD Monitor Arm
6. ‘Service port’ cable (Used for Firmware Upgrade ONLY!)
7. X-Y table
8. X-Y table locking lever
9. Recessed handles for carrying *Merlin elite*
10. *Merlin elite* 19V power supply
11. *Merlin elite* Power Cord (Attaches to 19v Power Supply) (power cord style may vary based upon country)
12. 3.5mm jack for Headphones

Accessories included:

13. Control Console: allows the user to control the *Merlin elite* functions
    *Must be plugged in to use and have access to the menu items for OCR/Text-To-Speech
14. *Merlin elite* Firmware Update cable
15. Lens Cloth: permits cleaning of the LCD display and lenses

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elite
enhanced vision
MODE
ZOOM
MARKER
VOLUME
CAPTURE
SPEED
LINE
SAVE
PAUSE/PLAY
RECALL
Use for software upgrade
enhanced vision

Figure 1

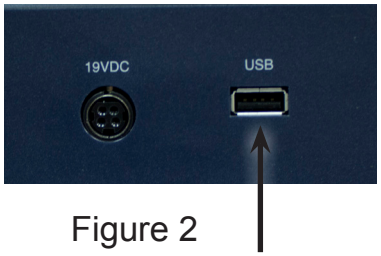


Figure 2

Figure 3

Figure 4

1. Find a steady and level location, such as a table or desk, where you will be comfortable using *Merlin elite*. Carry the *Merlin elite* only by the two recessed handles on the side of the base for a secure grip. **Do not lift the unit by the LCD monitor arm.** Place it on the table or desk (*see Figure 1*).

2. Connect the Control Console cord (See Page 10 Item 13) to the USB port at the back, left side (facing the back), of the *Merlin elite* base (See Figure 2).

3. Connect the power cord to the power supply (See Figure 3). Connect the power cord to an available electrical outlet (See Figure 4). Connect the other end of the power supply to the *Merlin elite* where it is labeled “19VDC” (See Figure 2).

To offer additional protection during an electrical storm, a surge protector may also be used and is recommended.

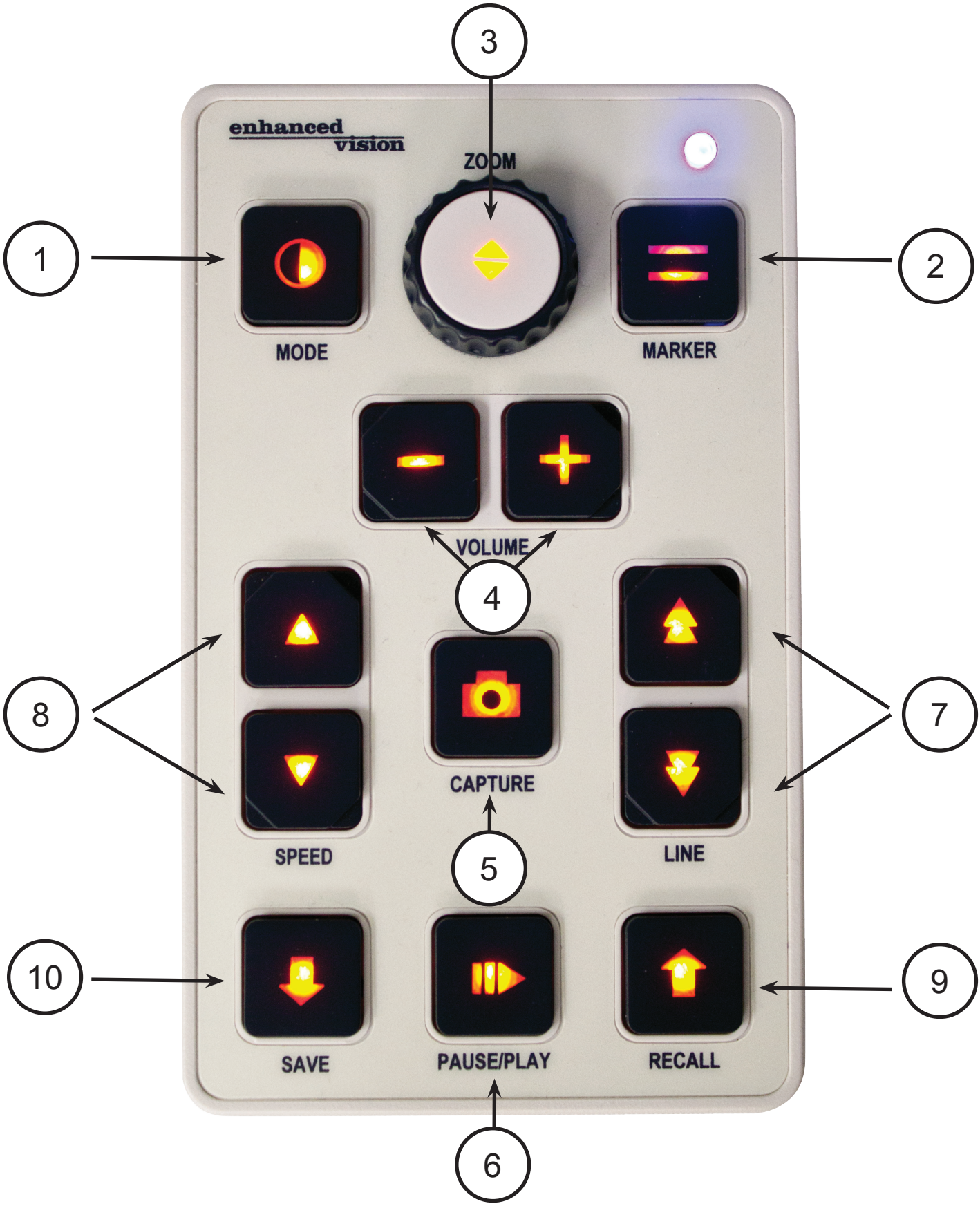
If the lights on the Power, Zoom Wheel and Mode buttons do not illuminate, or if an image does not appear on the HD LCD monitor, please check the power supply connections (review steps 2-3 on page 12 for details).

> NOTE: The *Merlin elite* turns ON by default upon plugging it into an electrical outlet the first time.

Pressing the Power button on the Front Panel, right side, of the *Merlin elite* for less than 5 seconds will put the device in Standby. Pressing the Power button again will wake the *Merlin elite* up from Standby.

To turn the *Merlin elite* off, press and hold the Power Button for more than 5 seconds or until "*Merlin elite* HD/OCR" appears on the screen.

CONTROL CONSOLE



See **Page 15** for detailed descriptions

BUTTON DEFINITIONS & COMBINATIONS

1	MODE	Used to change the color select modes.
2	MARKER	Used to display line markers. Can also be used with Line up/down to change marker position.
3	ZOOM	Zoom wheel and FIND key in center.
4	VOLUME	Audio volume increment/decrement.
5	CAPTURE	Toggle operation: Used to start OCR page capture, and convert to Text-Box. When activated in Text mode it shall revert to preview mode for recapturing new page. Any time after capture the save key can be used to store the captured document (in text format).
6	PAUSE/PLAY	Toggle operation: used to pause and play when viewing OCR.
7	LINE	Used to skip to next/previous line when in Text-mode. Pressing and holding for 2 seconds will jump to the first/last sentence of the document.
8	SPEED	Used to increase/decrease reading speed when in Text-to-speech mode. Pressing both at the same time will reset the reading speed back to default.
9	RECALL	Enters the Image Recall menu (Press for 2 seconds).
10	SAVE	Saves the current image to the Merlin-elite's internal Storage. (Up to 20 images) (Press for 2 seconds)

Button Combinations

Throughout the User Manual there will be ‘button combinations’ (ie.Press the “Find” and “Mode” buttons). This indicates that the buttons should be pressed simultaneously.

Turning Lights On/Off (toggle)

To turn the Merlin elite lights On/Off:
Press and hold the “Marker”

button for more than 5 seconds

***Note: The Merlin elite lights will automatically turn on when it is first powered on ***

Control Console LED Backlight

To toggle the LED Backlight On/Off on the *Merlin elite* Control Console:

1. Press the “Power” button on the *Merlin elite* Front Panel for less than 5 seconds to enter ‘standby’ mode.
2. Press and hold the “Find” button, then press and release the “Power” button on the Front Panel (this brings the LCD out of ‘standby’ mode).
3. Continue to hold the “Find” button until the Blue LED lights up on the upper right corner of the Control Console. Once the blue LED is lit, release the “Find” button.

NOTE: If your *Merlin elite* is plugged into a power strip/surge protector, make sure the power switch is turned on before attempting to turn on *Merlin elite*. If the power strip/surge protector comes with a circuit breaker, make sure the circuit breaker has been reset before attempting to turn on *Merlin elite*.

USING X-Y TABLE

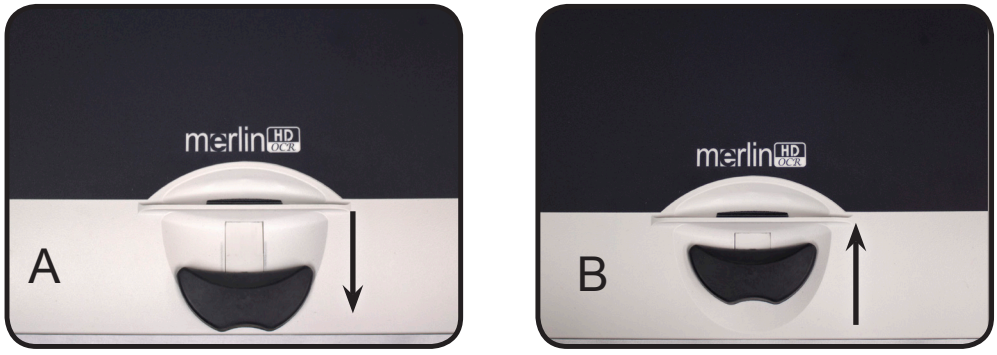
Locking the X-Y Table

To lock the X-Y table, pull the lever all the way to the front position until it locks (A). Unlock the X-Y table by pushing the lever to the back position (B).

Using the Locking Lever:
Placing the locking lever in the ‘locked’ position is primarily used when you want to move or transport the Merlin elite to a new location.

Placing the locking lever in the
‘unlocked ‘ position allows for full movement of the X-Y table for activities such as reading.

Placing the locking lever between ‘locked’ and ‘unlocked’ (Intermediate lock) can be used for tasks such as writing, hobbies, etc...



Reading With the X-Y Table

1. With the X-Y table unlocked, place a book, newspaper, etc., on the table.
2. Use the magnification dial to enlarge the image to a comfortable viewing size.
3. Glide the X-Y table to the left, which will make the words flow across the screen for reading.
4. When you have reached the end of a line, glide the table back to the beginning of the line.
5. Move the table away from you slightly to display the start of the next line.
6. Repeat steps 4, 5 and 6 to continue reading.

TIPS FOR READING AND WRITING

Reading with *Merlin elite*

- New users of video magnifier systems have a tendency to over-magnify their reading material. Make the type large enough to see it comfortably, but not so large that it becomes tedious to scan across a page.
- Use the X-Y table to move reading materials under the camera, rather than moving the material manually, except small items such as a checkbook or a business card.
- New users should use two hands when moving the X-Y table for reading, until they become comfortable using one hand.

Writing with *Merlin elite*

- Beginners should start at smaller magnification sizes, and then increase magnification as they become more comfortable using *Merlin elite* for writing.
- The smaller the magnification size the bigger you tend to write; the higher the magnification size the smaller you'll write.
- Use a pen that makes a bold line, such as a heavy point pen, a felt-tip marker or a fine point marker, for easier visibility.
- It might be helpful to use lined paper to more easily find and keep your place.
- It might be easier to keep your place if you write a few words at a time, then move the X-Y table and write again, rather than moving continually as you write.
- Write in either color, black-and-white or positive viewing modes.

CHANGING MAGNIFICATION

The *Merlin elite* offers a large range of magnification capabilities. The following directions can be used with the *Merlin elite* Front Panel Controls (See Figure 1) or Control Console (See Figure 2).

1. To adjust the magnification turn the “Zoom Wheel” located on the Front Panel or Control Console until you reach your desired magnification. Turning the wheel clockwise will increase magnification and turning the wheel counter-clockwise will decrease magnification.

2. The Zoom Level will appear in the upper right corner of your monitor when you are increasing or decreasing magnification. “Max Zoom,” will appear at the maximum magnification and “Min Zoom,” will appear at the minimum magnification.

NOTE: The extent of the magnification is dependent upon the distance of the Camera to the object.

Figure 1

Figure 2

CHANGING VIEWING MODES

The *Merlin elite* was designed to provide optimum viewing for people with certain visual conditions by offering a range of choices in both text and background colors.

Use the Mode key located on the Front Panel and Control Console to toggle between full color viewing, Black and White, Enhanced Positive, Enhanced Negative, and up to 5 of your favorite color select modes. Each push will allow you to cycle through all seven viewing modes. The 5 favorite color select modes can be modified to any of the 28 color select options by following the instructions provided on page 20.

VIEWING MODES

Full Color Image (default)

This mode gives a true color representation of the image being magnified.

Black-and-White Image

This mode gives a black and white representation of the image being magnified.

Enhanced-Positive Image

This mode provides a white background with black text. It increases the contrast to offer crisp text images for reading.

Enhanced Positive

Enhanced-Negative Image

This mode provides a black background with white text. It increases the contrast to offer crisp text images for reading.

Enhanced Negative

Color Select 1

In factory default this mode provides a black background with green text. This is one of the most commonly used color combinations. To change this mode to any of the 28 available follow the instructions on page 19.

Color Select 2

In factory default this mode provides a black background with yellow text. To change this mode to any of the 28 available follow the instructions on page 19.

Color Select 3

In factory default this mode provides a yellow background with blue text. To change this mode to any of the 28 available follow the instructions on page 19.

Color Select 4

In factory default this mode is turned off. Follow the instructions on page 19 to turn this color mode on.

Color Select 5

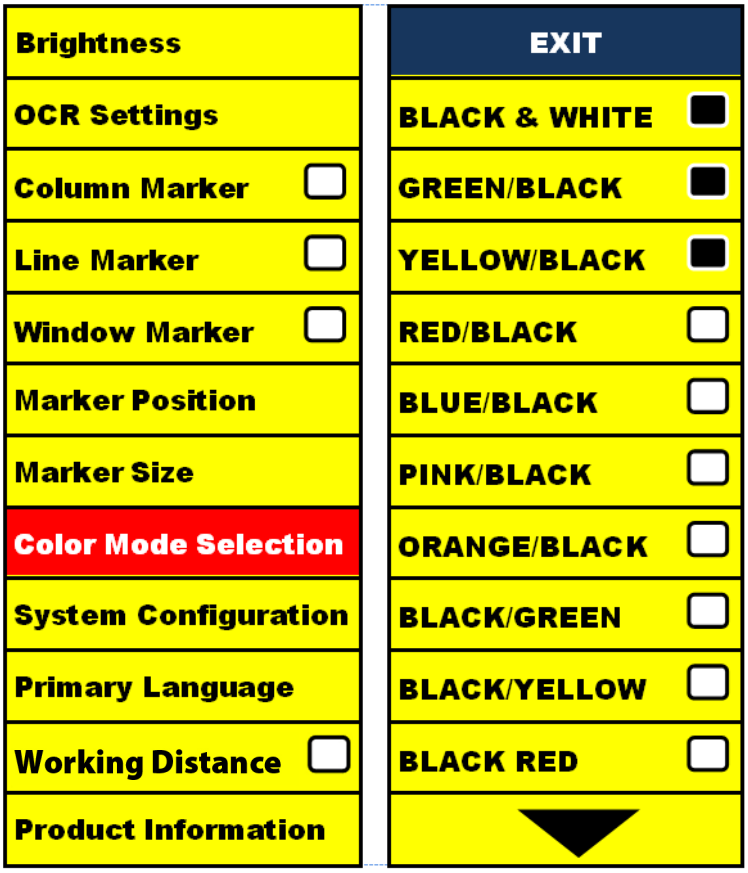
In factory default this mode is turned off. Follow the instructions on page 19 to turn this color mode on.

COLOR SELECT MODE MENU

Pressing and holding the “Mode” button for about 3 seconds on the Front Panel or Control Console will bring up the Color Select Menu. Scroll through the available Color Select Modes by turning the Zoom Wheel.

Press Find on the Front Panel (Center of Zoom Wheel) or Control Console to select the highlighted Color Mode.

Changing Favorite Color Modes



The *Merlin elite* provides 28 selectable Color Select Modes and allows selecting up to 5 favorites for use. The following directions can be used to change the favorite color modes on your *Merlin elite*.

1. Press the “Mode” and “Find” buttons located on the Front Panel or Control Console of the *Merlin elite* to enter the Menu.
2. Turn the “Zoom Wheel” clockwise until “Color Mode Selection” is highlighted
3. Press the “Find” button to select the “Color Mode Selection” sub menu.
4. Turn the “Zoom Wheel” until the desired Color Select Mode is highlighted.
5. Press the “Find” button to select or deselect the highlighted color mode.
6. Once 5 Color Select Modes have been selected no other color modes can be selected. To choose another Color Select Mode, deselect one of the 5 Color Modes previously selected.

Adjusting the Brightness

1. Press the “Mode” and “Find” buttons located on the Front Panel or Control Console of the *Merlin elite* to enter the Menu.

2. The “Brightness” should already be highlighted. Press the “Find” button to select the brightness adjustment option.

3. Turn the “Zoom Wheel” clockwise to brighten the display or counterclockwise to dim the display.

4. Once the desired brightness is set, press the “Mode” button to exit or wait 10 seconds for the Menu to exit.

Adjusting the White Balance

The color white is often affected by the lighting used in a room. The *Merlin elite* White Balance selection allows you to achieve optimum clarity.

1. Press the “Mode” and “Find” buttons located on the Front Panel or Control Console of the *Merlin elite* to enter the Menu.

2. Turn the “Zoom Wheel” clockwise until “System Configuration” is highlighted.

3. Press the “Find” button to select the “System Configuration” sub menu.

4. Choose between Auto, Normal, Warm, or Cold by highlighting the desired White Balance.

“Color: Auto” – Automatically adjusts to the lighting in the room

“Color: Normal” – Casts a balanced tone

“Color: Warm” – Casts a red tone

“Color: Cold” – Casts a blue tone

5. Press the “Find” button to select the desired setting.

6. Press the “Mode” button to exit the menu.

Line Markers and Windowing

Line Markers can be used as a reading guide by providing horizontal lines across the screen.

Windowing can be used as a reading guide by only displaying a portion of the screen.

Turning Markers On/Off:

Pressing the “Marker” on the Control Console will allow you to toggle through the Marker Options
*Column Marker is only available when Control Console is plugged in.

Off • Column Marker • Line Marker • Windowing

Adjusting Line Markers and Windowing (Column Marker Cannot be adjusted):

To adjust the position of the Marker:

1. Press the “Mode” and “Find” buttons located on the Front Panel or Control Console of the *Merlin elite* to enter the Menu.

2. Turn the “Zoom Wheel” until “Marker Position” is selected. Then press the “Find” button to select.

3. When this option is selected it will be highlighted RED. When this occurs, you can turn the “Zoom Wheel” clockwise/counterclockwise to move the Line Markers or Visible area up/down.

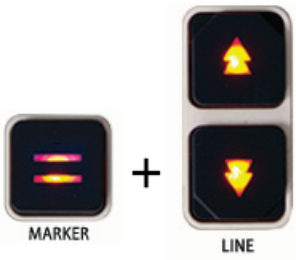
Control Console Shortcut: Press and hold the Marker button while turning the Zoom Wheel clockwise/counter-clockwise.	

To adjust the size between the Line Markers or size of the Windowing:

1. Press the “Mode” and “Find” buttons located on the Front Panel or Control Console of the *Merlin elite* to enter the Menu.

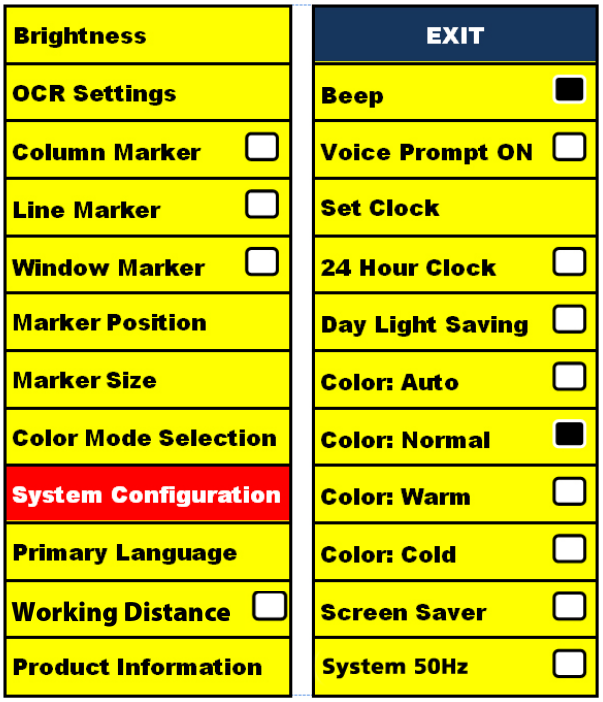
2. Turn the “Zoom Wheel” until “Marker Size” is selected. Then press the “Find” button to select.

3. When this option is selected it will be highlighted RED. When this occurs, you can turn the “Zoom Wheel” clockwise/counterclockwise to increase/decrease the size between the line markers or the size of the visible window.

Shortcut Key on Control Console: Press and hold the Marker button while pressing Line Up or Line Down	

SYSTEM CONFIGURATION SETTINGS-BEEP,VOICE PROMPT, CLOCK, SCREEN SAVER, AND SAVE & RECALL

System Configuration



1. Press the “Mode” and “Find” buttons located on the Front Panel or Control Console of the *Merlin elite* to enter the Menu.

2. Turn the “Zoom Wheel” clockwise until “System Configuration” is highlighted.

3. Press the “Find” button to select the “System Configuration” sub menu. To select an option, turn the zoom wheel to highlight the desired option.

Press the “Find” button to select/deselect that option. A black box next to that option indicates that it is ENABLED.

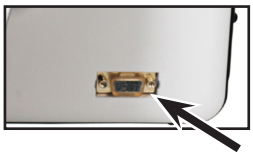
VOLUME ADJUSTMENT & VGA TOGGLE

Adjusting the Volume of your *Merlin elite* in CCTV mode

On the *Merlin elite's* Control Console you can press the "Volume" buttons to increase or decrease the volume.

A message on the top right corner of the screen will display the volume level when adjusting the volume. The Merlin-elite provides up to 10 volume levels.

VGA Toggle



At the back of the *Merlin elite* is a VGA port which allows for a computer signal to be attached to the *Merlin elite* display. This port makes it possible to use the *Merlin elite* display as a computer monitor to save desk space.

- To toggle from the camera image to the computer image press the "Mode" and "Marker" buttons on the Control Console simultaneously.
- To toggle from the computer image back to the camera image, press the "Find" button on the Front Panel or Control Console of the *Merlin elite*.

When using the *Merlin elite* Display as a computer monitor, the controls for the camera (e.g. Zoom, Mode, & Marker) will not work for the computer image.

Using the *Merlin elite* HD LCD as a computer monitor is similar to attaching a typical computer monitor to your computer or connecting a secondary display to your laptop. Refer to your computer or laptop user manual on how to connect a display. The *Merlin elite* HD LCD supports resolutions up to 1920 x 1080

Working Distance

You can increase the 'working distance' (distance from source material to camera lens) of the Merlin elite by enabling this setting. This feature is best utilized when you have thicker 'source material' (ie.. a thick book) on the X-Y Table

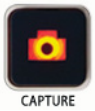
Note: You MAY notice a slight reduction in image quality (above Magnification level 8) when this setting is enabled

Using the OCR

Merlin elite provides users with the ability to scan a document placed underneath the camera and read it aloud. OCR/Text-to-Speech is only available when the *Merlin elite* Control Console is plugged in.

- If the document contains multiple columns, place the desired column in the middle of the screen. Using the “Column Marker” will help in locating the column the *Merlin elite* will read aloud (see page 22)

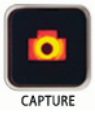
- Turning the “Deskew” option on will allow for a larger margin of error for a document that is not perfectly straight. (see page 27)

1. Place the document under the *Merlin elite* camera as straight as possible.
2. Press the “Capture” 

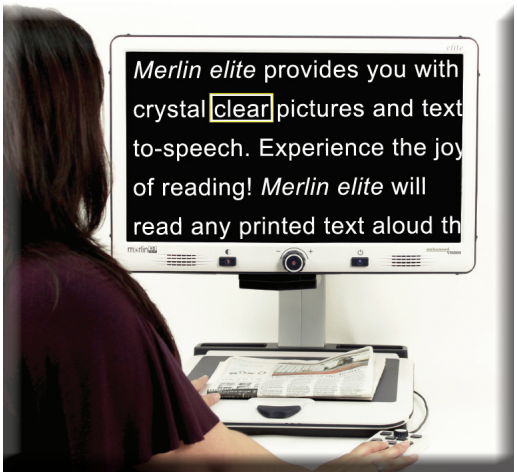
button on the Control Console.

   - This will take a snapshot of the document and process it for OCR.

3. After the *Merlin elite* has completed the processing step it will begin to read the document aloud.

4. To exit OCR/Text-to-speech Mode, press the “Capture” 

button on the *Merlin elite* Control Console.



Adjusting Volume

• To increase/decrease the volume, Press the or on the Control Console. *Note: CCTV and OCR mode volume levels are independent from each other.

Adjusting Reading Speed

• To increase/decrease the speed that the OCR will read the document aloud, press the or

on the Control Console.

Skip to Next or Previous Sentence

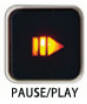
• To skip to or go back to the previous sentence, press the or

on the Control Console.

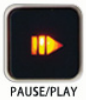
• Jump to first/Last sentence of the Document. Press and hold the or

for 2 seconds.

Pause/Play

• Pressing the 

on the Control Console will pause the *Merlin elite*.

• By pressing the 

again, the unit will continue reading.

Using Headphones with the *Merlin elite*

On the left hand side of the *Merlin elite* monitor, there is an available 3.5mm input jack for use of standard headphones.

*Note: Sound from the *Merlin elite* speakers will not be available while the headphone jack is in use.

*Headphones are not included with *Merlin elite*.

OCR Menu Settings

Male Voice/Female Voice

- Set the *Merlin elite* to read aloud or prompt in a Male or Female Voice.

Deskew

- When on, the *Merlin elite* will automatically adjust a document when not set straight under the camera.

Progress Bar

- Enables/Disables the visibility of a progress bar when the *Merlin elite* is processing a document to Text-To-Speech.

Saving and Recalling Images

The *Merlin elite* has the ability to save images from CCTV or OCR modes. This will allow the user to take a snapshot of a document, save it, and view it at a later time.

Saving an Image

1. Place a document underneath the camera head and set the desired Color Mode and Zoom.

2. Press and hold the “Save”

button on the *Merlin elite* Control Console for 2 seconds. When the image is saved the *Merlin elite* will display “IMAGE SAVED”. If the storage space is full, the *Merlin elite* will display “DEVICE FULL” with a voice prompt (if enabled)

The *Merlin elite* will name that image by the month, day, year, time, and mode it was saved at. **mm.dd.yyyy – hh:mm [OCR/IMG]**

*In CCTV mode, if you save the image consecutively within a minute, the previous image saved will be overwritten.

**In OCR mode, if you save the image consecutively within a minute, the *Merlin elite* will display “Already Saved”

Recalling a Saved Image

1. Press and hold the “Recall” button on the *Merlin elite* Control Console for 2 Seconds.

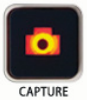
2.The *Merlin elite* will enter the Recall Image menu displaying a list of available images.

If the storage space is empty, the message “NO FILES” will be displayed with a voice prompt (if enabled).

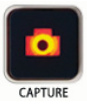
3. Use the “Zoom Wheel”

on the *Merlin elite* Front Panel or Control Console to navigate through the list of images. When an image file on the list is highlighted, it will display a preview of that image on the right side of the screen.

4. Pressing the Find button on the highlighted file will display the image in full screen and begin to read aloud if saved in OCR mode.

To exit the Recall Menu back to CCTV mode, press the “Capture” 

button on the *Merlin elite* Control Console.

To exit the full screen display back to CCTV mode, press the “Capture” 

button on the *Merlin elite* Control Console.

Deleting a Saved Image

1. While in Image Recall Menu use the “Zoom Wheel”

on the *Merlin elite* Front Panel or Control Console to navigate to an image.

2. Press the “Pause/Play”

button on the *Merlin elite* Control Console on the desired image file.

3. A sub menu will appear next to the selected image allowing you to “CANCEL” or “DELETE”.

4. Use the “Zoom Wheel”

on the *Merlin elite* Front Panel or DaVinci Control Console to select “CANCEL” or “DELETE”.

5. Pressing the “Find” button on *Merlin elite* Front Panel or Control Console while “CANCEL” is highlighted will bring you back to the Image Recall menu. Pressing the FIND button on *Merlin elite* Front Panel or Control Console while “DELETE” is highlighted will delete the selected image. The *Merlin elite* will display “IMAGE DELETED” when the file has been successfully deleted. Pressing the MODE button on the *Merlin elite* Control Console will allow you to exit the Image Recall menu.

System 50Hz - EU/International

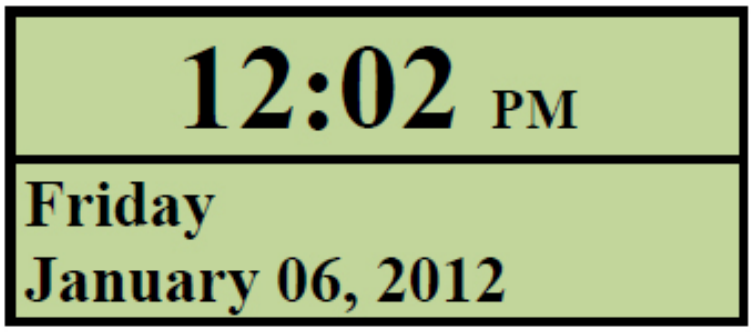
When this feature is ENABLED it eliminates ‘screen flicker’ which can occur when *Merlin elite* is used with EU/International systems (which commonly default to 50Hz).

Merlin elite Screen Saver

When the Screen Saver feature is turned on, the *Merlin elite* will display the date and time on the entire screen if there is no activity for 10 minutes. Any movement under the camera or pressing any button on the *Merlin elite* Front Panel or Control Console will revert the *Merlin elite* back to its previous state. It is possible to manually display the screen saver by pressing the “Pause/Play”

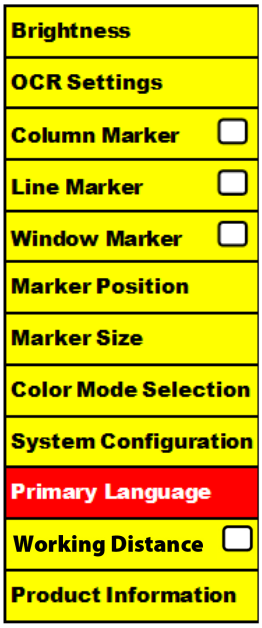
and “Save”

buttons at the same time.



Language Setting

The *Merlin elite* supports multiple languages that can be set in the Primary Language menu.



Setting the Primary Language

The primary language that is set will be the main language for the *Merlin elite*. The Menu text and prompts that will be displayed on the *Merlin elite* will be in the language that the user selects in this menu.

1. Press the “Mode” and “Find” buttons located on the *Merlin elite* Front Panel or Control Console to enter the Menu.

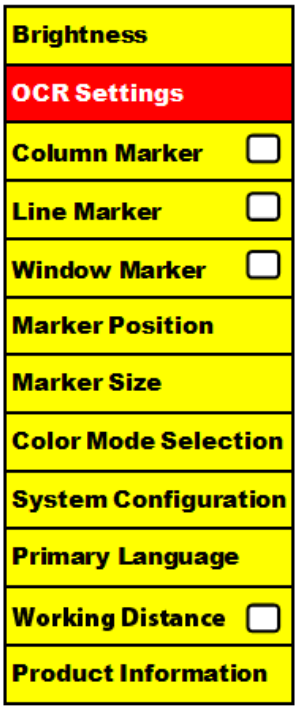
2. Turn the “Zoom Wheel” clockwise until “Primary Language” is highlighted.

3. Press the “Find” button to select the “Primary Language” sub menu. To select an option, turn the “Zoom Wheel” to highlight the desired language. Press the “Find” button to select that option. A black box next to that option indicates that that option is ON.

Setting the OCR Language

The *Merlin elite* is capable of reading text aloud in multiple languages. By default, the *Merlin elite* will only read aloud text written in the same language that is set in the Primary Language menu.

By selecting an additional OCR Language, the user can select additional languages, other than the previously set primary language, the *Merlin elite* will be able to read text written in that additional language aloud.



1. Press the “Mode” and “Find” buttons located on the Front Panel or Control Console of the *Merlin elite* to enter the Menu.

2. Turn the “Zoom Wheel” clockwise until “OCR Settings” is highlighted.

3. Press the “Find” button to enter the “OCR Settings” menu options.

To select an additional OCR Language, turn the “Zoom Wheel” to highlight the desired language. Press the “Find” button to select that option. A black box next to that option indicates that it is ENABLED. The Primary Language will already be selected and the user will not be able to deselect that option. Multiple languages can be set at one time.
** Languages may vary upon region and can change with future updates.

Product Information

The Product Information will display the technical information of the Merlin-elite and also allows the user to restore the *Merlin elite* back to its factory settings.

1. Press the “Mode” and “Find” buttons located on the *Merlin elite* Front Panel or Control Console to enter the Menu.

2. Turn the zoom wheel clockwise until “Product Information” is highlighted.

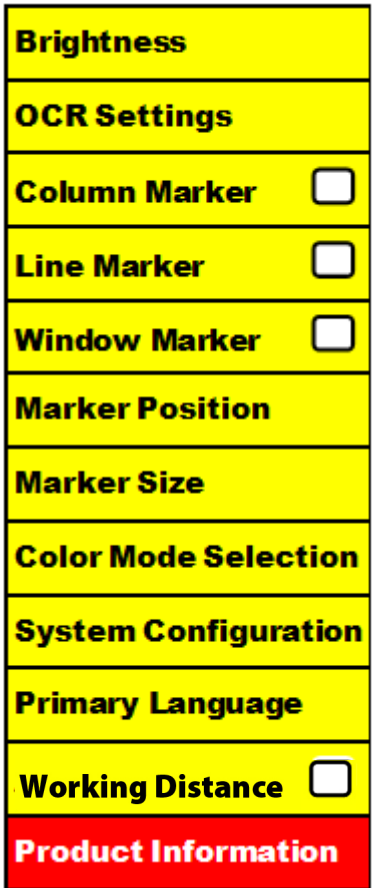
3. Press the “Find” button to display the “Product Information” sub menu.

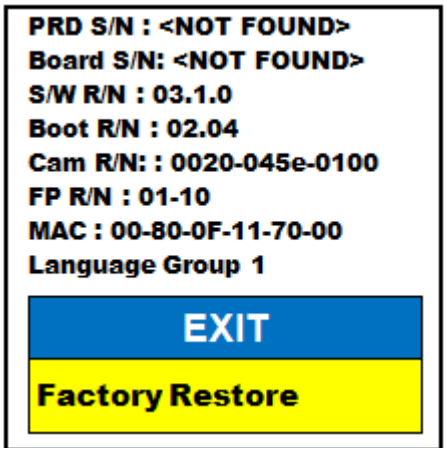
4. While in this menu you can:

    a. Check the firmware versions and other software related version numbers.

    b. Or restore the settings of the *Merlin elite* by rotating the zoom wheel clock wise to “Factory Restore” then pressing the “Find” button.

** When resetting the *Merlin elite* to its factory settings, the Male/Female voice and Primary Language preference will remain the same.





TROUBLESHOOTING

The *Merlin elite* will not power on

-Push the Power button on the *Merlin elite's* Front Panel. Lights on the Power button, Zoom Wheel and Mode button should illuminate indicating the power is turned on.

-Make sure the power supply from the *Merlin elite* is securely connected to a working outlet.

-Make sure the two parts of the power supply cord are securely connected.

-Make sure the power supply cord is completely plugged into the DC 19V IN jack on the back of the viewing stand base.

-Check the power strip/surge protectors on/off switch and circuit breaker if *Merlin elite* is plugged into one.

The images seem to be out of focus

-Clean the protective glass covering the camera with the nonabrasive lens cleaning cloth provided with your *Merlin elite*.

-Clean the monitor screen with a non-abrasive cloth sprayed with a glass cleaning solution.

-Make sure the target material is steady on the tray. It might take a few moments for the camera to achieve perfect focus after motion has stopped. This is normal.

-Make sure the LED Lamps near the *Merlin elite* Camera are ON. Making sure there is sufficient ambient lighting will assist in creating a better image.

X-Y Table Does Not Move Smoothly

-Make sure the locking lever is positioned completely to the back.

X-Y Table Does Not Stay in Locked Position

-Make sure the locking lever is all the way to the front.

The *Merlin elite* is taking a long time to process the document for Text-to-speech.

- Disabling the “Deskew” in the menu will increase the processing speed.

By disabling “Deskew” in the document must be placed under the *Merlin elite* camera as straight as possible.

When “Auto Language” is disabled, the *Merlin elite* will only read text that is the same as the setting in “Primary Language”. For Example, in a multi-language written document, the *Merlin elite* will only read the English text when “Primary Language” is set to “English” and “Auto Language” is set to OFF.

Resetting the *Merlin elite*

- If the *Merlin elite* is not responding you can ‘reset’ it by pressing the “Find” and “Power” Buttons simultaneously. Any setting changes you have made will be retained.

Replacement LED lamps

Your *Merlin elite* comes equipped with two 100,000-hour LED lamps designed to provide years of trouble-free service. However, in the unlikely event that the LEDs need replacement, contact your place of purchase or Enhanced Vision at (800)440-9476 for instructions or assistance on replacing the LEDs.

Firmware Update

To keep your *Merlin elite* up to date visit our software support page at: http://www.enhancedvision.com/support/software.html

If you have any questions or require technical assistance with your product, please call (800) 440-9476, Monday – Friday, from 8 a.m. to 5 p.m. PST.

MERLIN ELITE SPECIFICATIONS

Product

- Dimensions:

  • 24” LCD: 27.75” H x 22.75” W x 20” D
  (70.5cm H X 57.8cm W x 50.8cm D)
  - Product Weight:

  • 24” LCD: 40.1 lbs (18.2 Kg)

Display

- Type: 24” Standard Diagonal LCD
- Average lifetime: 40,000 hours
- Resolution: 1920 x 1080 (24” model)
- Response Rate: 1.5 milliseconds (24” monitor) All monitor specifications subject to change without prior notice

Magnification range

24” LCD: 2.4x (minimum) - to 70x (maximum)

- 24” Field of View (Reading Mode): 7.4mm (1/3”) (min); 216mm (8.5”) (max)

Viewing Modes

- Color, black & white, high contrast Positive/Negative, Digital Color Select (3 modes).

Power Supply

- Input voltage/current: 120-240 VAC / 0.3-0.5A (nominal)
- Output voltage: 19 VDC
- Frequency: 50/60 Hz
- Power usage: 30W

Equipment Classification (IEC 601-1):

- Type of Protection: Class 1
- Degree of Protection: Type B
- Mode of Operation: Continuous
- Operating temperature range: 0-40°C / 32-104°F
- Storage/transport temperature range: 0-60°C / 32-140°F

Warranty: 3 Years

*Product specifications subject to change without notice.

Enhanced Vision
Merlin elite Warranty Policy

Enhanced Vision products are designed to give you the highest quality image, convenient features, ease of use and reliable service. **The *Merlin elite* has been inspected and tested prior to shipping.** Enhanced Vision warrants the *Merlin elite* against defects in material and workmanship under normal use for **three years** from the date of original purchase. Enhanced Vision, at its option, will at no charge either repair the product or replace it during the warranty period. There are no other expressed or implied warranties accompanying this product.

This warranty does not cover: a) Defects or damage from misuse, use in other than normal and customary manner, accident or neglect; b) Defects or damage from improper operation, maintenance, installation, adjustment, alterations or modification; c) Defects or damage from spills of food or liquid; d) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal use; e) Damage due to operation of the *Merlin elite* with equipment not supplied by Enhanced Vision.

- You must provide proof of purchase, bearing the date of purchase, in order to receive warranty service.
- Anyone using this product does so knowingly assuming certain risks, due to the need to utilize vision enhancement devices.
- A 2-year extended warranty option is available within 12 months from the date of purchase. Please contact Enhanced Vision for detailed information.

Service Process

In the event that technical support or repair service is needed, please contact your local Enhanced Vision representative or the Enhanced Vision warranty service center.

If warranty service is required, please contact Enhanced Vision at (800)440-9476 Monday through Friday, between 8 a.m. and 5 p.m. Pacific Standard Time (PST) to request a return authorization number. **Warranty repairs will not be accepted without a valid return authorization number.**

You may wish to keep the original product packaging in case warranty service is required. The manufacturer cannot provide packaging for warranty repairs.

NOTE: Please completely fill out and send in the enclosed warranty

OTHER PRODUCTS FROM ENHANCED VISION

Pebble

The Pebble is a handheld electronic video magnifier that you can take anywhere. Weighing less than 8 ounces, Pebble features a uniquely-designed folding handle and includes both near-viewing and table reading modes. Small enough to fit in your pocket or purse, the Pebble is the ideal companion to provide magnification, on the go. Featuring a built-in 3.5” or 4.3" LCD screen, the Pebble's Freeze-Frame feature allows you to capture any still image and adjust magnification. Up to 28 different viewing modes allow you to choose alternate color combinations based on your personal preference. Pebble can be powered using standard rechargeable batteries (included)

CE

Magnification: 2X – 10X

CE

Pebble-mini

Pebble-mini’s ultra-compact design makes it the ideal hand-held magnifier whether you’re home or on the go. Easily read prescriptions, mail, labels, price tags, menus and so much more. 3.0”LCD screen. Freeze frame and image capture. 28 available viewing modes.
Magnification 2X to 10X

CE

OTHER PRODUCTS FROM ENHANCED VISION

Transformer

Transformer is the most flexible and portable solution for reading, writing and viewing magnified images at any distance. Compatible with popular magnification software and the latest Windows operating systems. Transformer's unique design is perfect for work, home or school. Weighs less than 3 pounds. Battery operated up to 4 hours. 28 custom color select modes.

Magnification 2.4X to 30X
(based on 17"screen)

CE

Amigo

Amigo is a truly portable desktop magnifier. Optimal viewing is achieved with a tilting 6.5 inch viewing screen. Amigo provides 3.5 to 14x digital magnification and the lightest weight in its class. Amigo is battery operated and can be taken anywhere.

CE

DaVinci

DaVinci is a high performance desktop video magnifier (CCTV), featuring HD, text-to-speech (OCR) and a 3-in-1 camera. With HD you will experience high definition color and contrast giving you a beautiful, crystal clear picture and vibrant colors. Experience the joy of reading with our new text-to-speech feature. DaVinci will read any printed text aloud with the push of a button.

Magnification: 24" LCD: 2x (minimum)
- to 80x (maximum)

CE

Acrobat LCD

With your choice of a built-in 19”,22” or 24” LCD, the Acrobat is a 3-in-1 video magnifier ideal for near, distance and self viewing. By rotating the camera, you can read, write, groom, and magnify images at any distance. The Acrobat LCD offers a complete system for those at work, school or home.

Magnification: 2X – 65X (19” LCD)

Magnification: 2X – 75X (22” LCD)

Magnification: 2X – 82X (24” LCD)

CONTACT INFORMATION

Enhanced Vision manufacturers many different types of products tailored to meet the needs of our low vision customers. If you have questions about any of our products, please don’t hesitate to give us a call.

Contact Information:

(US Office) Phone: (714)465-3400 **Fax:** (714)374-1821
(UK Office) Phone: +44 (0)115 9442317 **Fax:** +44 (0)115 9440720
(DE Office) Phone: +(49) 06078 911772 **Fax**: +(49) 06078 911774
www.enhancedvision.com

Technical Support:

Main Toll Free (800) 440-9476 ext. 3
Local Phone: (714) 465-3400 ext. 3
E-mail: evsupport@enhancedvision.com

NOTES

NOTES

enhanced vision

The *Merlin elite* is a high performance desktop video magnifier (CCTV) - featuring text to speech (OCR). With HD you will experience high definition color and contrast giving you a beautiful, crystal clear picture with vibrant colors. Experience the joy of reading with our new text-to- speech feature. *Merlin elite* will read any printed text aloud with just the push of a button. For more information, please visit www.enhancedvision.com.

www.enhancedvision.com
(800) 440-9476 (US Office, toll free)
(714)465-3400 (US Office)
+44 (0) 9442317 (UK Office)
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Fax + (49) 06078 911774 (DE Office)

Part # MAN-0505-00 X1
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Product specifications subject to change without prior notice.